

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

Date of Report: 12/03/03

Date Received: 11/06/03

Project: Metro Self Monitor, PO# M92123, F&BI 311040

Date Extracted: 12/01/03

Date Analyzed: 12/01/03

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE  
FOR TOTAL METALS BY  
INDUCTIVELY COUPLED PLASMA (ICP)  
(METHOD 6010)**

Results Reported as mg/L (ppm)

<u>Sample ID</u> Laboratory ID	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M92123 311040-01	0.47	0.53	0.90	<0.05
Method Blank	<0.05	<0.05	<0.10	<0.05

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**QUALITY ASSURANCE RESULTS  
FROM TOTAL METALS BY  
INDUCTIVELY COUPLED PLASMA (ICP)  
(METHOD 6010)**

Laboratory Code: 311246-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.21	0.21	0	0-20
Copper	mg/L (ppm)	0.16	0.16	0	0-20
Nickel	mg/L (ppm)	0.15	0.15	0	0-20
Zinc	mg/L (ppm)	0.05	<0.05	nm	0-20

Laboratory Code: 311246-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	Acceptance Criteria
Chromium	mg/L (ppm)	2	0.21	90	80-120
Copper	mg/L (ppm)	2	0.16	86	80-120
Nickel	mg/L (ppm)	4	0.15	85	80-120
Zinc	mg/L (ppm)	2	0.05	91	80-120

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Chromium	mg/L (ppm)	2	105	95	80-120	10
Copper	mg/L (ppm)	2	105	94	80-120	11
Nickel	mg/L (ppm)	4	106	97	80-120	9
Zinc	mg/L (ppm)	2	107	98	80-120	9

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

311040

## SAMPLE CHAIN OF CUSTODY

CM 11/06/03

AP1

AKC-000853

Send Report To

G. Thompson

Company

Alaskan Copper Works

Address

628 S. Henderson St

City, State, ZIP

Seattle WA

Phone #

206-382-8777

Fax #

SAMPLER (signature)

PROJECT NAME/NO.

METHUEN self monitor

PO #

152123

REMARKS

Page # \_\_\_\_\_ of \_\_\_\_\_

## TURNAROUND TIME

☐ Standard (2 Weeks)☐ RUSH

Rush charges authorized by: \_\_\_\_\_

## SAMPLE DISPOSAL

☐ Dispose after 30 days☐ Return samples☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED										Notes			
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS								
M92123	01	11/6	9:30	A20	1								<del>Cu, Cu, pi, 20</del>						

Friedman &amp; Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

SIGNATURE

Relinquished by:

Received by:

Relinquished by:

Received by:

PRINT NAME

G. Thompson

Nhan Phan

COMPANY

ACW

F&amp;BI

DATE

11/6/03

11/6/03

TIME

9:30

9:30



**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D.  
Charlene Morrow, M.S.  
Yelena Aravkina, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

December 3, 2003

**DUPLICATE COPY**

**INVOICE # 03ACU1203-5**

Accounts Payable  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M92123, F&BI 311040 - Results of testing  
requested by Gerry Thompson for material submitted on November 6, 2003.

1 sample analyzed for Total Chromium, Copper, Nickel and Zinc  
by Method 6010B @ \$80 per sample \$ 80.00

Amount Due ..... \$ 80.00

FEDERAL TAX ID #(b) (6)

FRIEDMAN & BRUYA, INC.

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FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

December 3, 2003

Gerry Thompson, Project Manager  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on November 6, 2003 from the Metro Self Monitor, PO# M92123, F&BI 311040 project. There are 2 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Charlene Morrow  
Chemist

Enclosures  
ACU1203R.DOC